

**Abstract****External electrodes on piezoceramic multilayer actuators**

5 In the case of external electrodes on piezoceramic  
multilayer actuators that are applied in a conventional  
manner to the multilayer actuators, severe tensile  
stresses act on the insulating region underneath the  
basic metallization during operation. Since said  
10 insulation region forms a homogeneous unit together with  
the basic metallization and the joining layer, the  
latter breaks down when the tensile strength of the  
weakest member is exceeded and cracks are formed. The  
cracks extending in an uncontrolled manner through the  
15 insulating region are very critical since they reduce  
the insulation spacing and considerably increase the  
probability of an actuator failure due to flashovers.

According to the invention, it is therefore proposed  
20 that the layer of the basic metallization (3) is  
structured (15) by discontinuities or recesses (17).

(Figure 4)